

# BioLabs and Blanket Forts: creating the bridge between Fab Lab and DIYBio cultures

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## **Abstract**

Similarly to the Fab ethos, DIYBio aims to make the tools and techniques of research available at low cost, in an open way that enables innovative solutions to be developed. How does a Fab Lab engage with the Do it Yourself (DIYBio also known as biohacking) culture without embedded scientific knowledge? What are the steps we can take to adopt DIYBio culture and incorporate it into the Fab Lab culture? What are the legal issues involved and how do we build knowledge and expertise in a sustainable way? How do we temper naive enthusiasm with science, yet retain a sense of adventure and exploration?

This paper discusses the trials and tribulations, the successes and deep learning that have accompanied Fab Lab Wgtn's journey into yet another unknown space. The space of science and the natural world.

Three years ago, Fab Lab Wgtn had already established its Resilience Project, an outcome of a Fab Academy group project. We presented a paper on this project at Fab10. We had been creating compost from our clean wood waste, creating circular systems with many of our materials, and the Project had come to represent an overarching value that we wished to integrate into our systems.

As a result of this, we had become increasingly interested in DIYbio and citizen science, and curious as to how we might synthesise this into our existing programmes. Visiting the Green Lab at Valldoura during the Fab10 conference was particularly inspirational. How could we become an even greener lab, based in a city, on a university campus? We looked at the new programme BioHack Academy, and started talking more people locally.

While at Fab 11, participating in a session about the new Bio Academy, this reaching out paid off. A tweet, a response, and a meeting upon returning to New Zealand has led to the development of our beautiful DIYBio Lab (Blanket Fort), some great reciprocal relationships, DIYBio workflows, and some pretty great documentation. We have worked with edible fungi, growing them as a food source as well as experimenting with them to create new materials from our clean wood waste.

This paper discusses the process and the outcomes to date, and postulates a future that no longer feels so distant. Taking a shared ethos of curiosity, decentralisation, open science, open data, open tools, this is the story of how an independent scientist and two designers worked together to create a new way of understanding our world. We all wanted to understand the potential of new materials and processes, and how they would impact on our everyday design | make | scientific practice.

## **Keywords**

DIYBio, Open science, sustainable practices, resilience, bio-materials

## **Full Paper Unavailable**